Amendments to the Claims:

The listing of claims will replace all prior version, and listing, of claims in the application.

Listing of Claims:

1.-30. (canceled)

31. (Currently Amended) A method of transforming heat energy to mechanical energy, comprising the steps of:

expanding an evaporated working fluid using a low-pressure expansion device connected with an evaporator to form an expanded evaporated working fluid, and

recycling energy contained in the expanded evaporated working fluid into the evaporator such that the recycled energy is utilized to evaporate additional working fluid,

wherein the working fluid is an azeotropic mixture.

32. (Previously Presented) The method of claim 31, wherein the working fluid is a mixture including a first component and a second component, said method further comprising absorbing, by an absorption fluid, a portion of the first component at least one of in or downstream of the low-pressure expansion device, and transferring recyclable heat to the remaining evaporated second component during said step of absorbing.

33. (Previously Presented) The method of claim 32, wherein the mixture is an azeotropic mixture that has a minimal boiling point at a certain mixing ratio.

34. (Canceled)

35. (Previously Presented) The method of claim 32, wherein the heat transferred to the second component in said step of transferring heats the second component remaining evaporated to a temperature above the boiling point of the mixture, and wherein said step of transferring recyclable heat comprises condensing the second component in a heat exchanger.

36. (Previously Presented) The method of claim 31, further comprising transforming the expanded, evaporated working fluid to a temperature level above the boiling point of the working fluid by a heat pump.

37. (Previously Presented) The method of claim 36, wherein the heat pump comprises a liquid-overlapped compressor system.

38. (Previously Presented) The method of claim 37, wherein the compressor system is formed as a fluid-ring pump or as a liquid-overlapped rotary screw compressor.

39. (Previously Presented) The method of claim 36, wherein the evaporation enthalpy of the operating fluid of the heat pump is greater than the quadruple of the evaporation enthalpy of the working fluid.

40. (Previously Presented) The method of claim 31, wherein the working fluid has a low volume-specific evaporation enthalpy.

41. (Previously Presented) The method of claim 31, wherein the working fluid is a solvent mixture comprising organic and/or inorganic solvent components.

42. (Previously Presented) The method of claim 41, wherein at least one component of the working fluid is a protic solvent.

43. (Previously Presented) The method of claim 32, wherein the absorption fluid is a reversibly immobilizable solvent which, in its non-immobilized aggregate state, is the first component of the working fluid.

44. (Previously Presented) The method of claim 31, wherein the low-pressure expansion device is a roots blower.

45. (Previously Presented) The method of claim 44, wherein the roots blower is provided with at least one injection opening, said method comprising the step of introducing one of an absorption fluid and a protic solvent into the roots blower through the at least one injection opening.

46. (Previously Presented) The method of claim 32, wherein the first component is absorbed in an absorption device arranged downstream of the low-pressure expansion device.

47. (Previously Presented) The method of claim 46, wherein the absorption device is as a scrubber.

48. (Previously Presented) The method of claim 46, wherein the absorption device comprises an electrolysis device.

49. (Previously Presented) The method of claim 32, further comprising the step of separating the absorbed first component from the absorption fluid using a separating assembly.

50. (Previously Presented) The method of claim 49, wherein the separating assembly is a membrane system.

51. (Previously Presented) The method of claim 49, wherein said step of separating comprises evaporating the absorbed first component.

52. (Previously Presented) The method of claim 31, wherein the evaporator is arranged upstream of the low-pressure expansion device to absorb the working fluid.

53. (Previously Presented) The method of claim 47, further comprising the step of separating the absorbed first component from the absorption fluid using a separating assembly and feeding, by a pump, the absorption fluid into the separating apparatus and subsequently back to the scrubber.

54. (Previously Presented) The method of claim 31, wherein the working fluid is an azeotropic mixture of water and silicone.

55. (Previously Presented) The method of claim 31, wherein the absorption fluid is a silicate solution.

56. (Currently Amended) A system for transforming heat energy to mechanical energy, comprising:

an evaporator for evaporating a working fluid formed as a mixture comprising first and second components;

a low-pressure expansion device receiving the evaporated working fluid and expanding the evaporated working fluid;

an absorption device that is one of integrated with the low-pressure expansion device and downstream of the low-pressure expansion device, the absorption device introducing an absorption fluid to the working fluid, wherein the first component of the working fluid is absorbed by the absorption fluid in the absorption device and heat is transferred to the remaining, evaporated second component, the heat being recyclable,

wherein the working fluid is an azeotropic mixture.

57. (Previously Presented) The system of claim 56, wherein the low-pressure expansion device is a roots blower.

58. (Previously Presented) The system of claim 56, further comprising a separating assembly separating the absorbed first component from the absorption fluid.

59. (Previously Presented) The system of claim 56, further comprising a generator coupled to the low-pressure expansion device for converting the mechanical energy to electric energy.

60. (Previously Presented) The system of claim 56, wherein said evaporator is arranged and dimensioned for recycling energy contained in the expanded evaporated working fluid such that the recycled energy is utilized to evaporate additional working fluid.